WHAT IS CLAIMED IS:

1. An imaging apparatus comprising:

a photoreceptor element that changes an electric-signal level on an output line thereof in accordance with an intensity of light received;

comparing means for comparing the electric-signal level on the output line of the photoreceptor element with a threshold electric-signal level, and sending an output signal on condition that the electric-signal level on the output line of the photoreceptor element has crossed the threshold electric-signal level; and

storage means, to which a clock signal is input, for recording information regarding a time of generation of the output signal from the comparing means;

wherein the threshold electric-signal level changes as time elapses.

2. An imaging apparatus according to Claim 1, wherein the photoreceptor element is set to an initial-setting electric-signal level by an initialize signal and the electric-signal level on the output line is lowered in accordance with the intensity of light received, wherein the comparing means outputs an output signal on condition that the electric-signal level on the output line of the

photoreceptor element has become lower than or equal to the threshold electric-signal level, and wherein the threshold electric-signal level becomes higher as time elapses.

3. An imaging apparatus according to Claim 1, further comprising a calculation unit, wherein the storage means records time information regarding a time taken for the electric-signal level on the output line to be lowered by an exposure of the photoreceptor element from an initial-setting electric-signal level until crossing the threshold electric-signal level, and wherein the calculation unit receives input of the time information recorded in the storage means, calculates a value of optical energy received by the photoreceptor element per unit time according to a formula (Vinit - Vth(t))/Tn where Vinit denotes the initial-setting electric-signal level, Vth(t) denotes the threshold electric-signal level, and Tn denotes the time information, and calculates a pixel value based on the value of optical energy received.

4. An imaging apparatus according to Claim 1, wherein the comparing means compares an amplified electric-signal level of the electric-signal level on the output line of the photoreceptor element with the threshold electric-signal level.

5. An imaging apparatus comprising:

a photoreceptor element that changes an electric-signal level on an output line thereof in accordance with an intensity of light received;

comparing means for comparing the electric-signal level on the output line of the photoreceptor element with a threshold electric-signal level, and sending an output signal on condition that the electric-signal level on the output line of the photoreceptor element has crossed the threshold electric-signal level;

storage means, to which a clock signal is input, for recording information regarding a time of generation of the output signal from the comparing means; and

reset-signal input means for inputting a reset signal to the photoreceptor element based on the output signal from the comparing means to reset the electric-signal level on the output line to the initial-setting electric-signal level.

6. An imaging apparatus according to Claim 5, wherein the storage means repeatedly records time information and the reset-signal input means repeatedly inputs a reset signal to the photoreceptor element, and wherein the storage means successively records time information regarding times of generation of a plurality of output signals generated

intermittently from the comparing means.

7. An imaging apparatus according to Claim 5, further comprising a calculation unit, wherein the storage means successively records sets of time information regarding times taken for the electric-signal level on the output line to be lowered by an exposure of the photoreceptor element from an initial-setting electric-signal level until crossing the threshold electric-signal level, and wherein the calculation unit receives input of two successive sets of time information recorded in the storage means, calculates a value of optical energy received by the photoreceptor element per unit time according to a formula (Vinit - Vth)/(Tx - Ty) where Vinit denotes the initial-setting electric-signal level, Vth denotes the threshold electric-signal level, and Tx and Ty denote the two successive sets of time information, respectively, and calculates a pixel value based on the value of optical energy received.

8. An imaging apparatus according to Claim 5, wherein the threshold electric-signal level changes as time elapses.

9. An imaging apparatus according to Claim 5, wherein the comparing means compares an amplified electric-signal level of the electric-signal level on the output line of the

photoreceptor element with the threshold electric-signal level.

10. An imaging apparatus comprising:

a photoreceptor element that changes an electric-signal level on an output line thereof in accordance with an intensity of light received;

comparing means for comparing the electric-signal level on the output line of the photoreceptor element with a threshold electric-signal level, and sending an output signal on condition that the electric-signal level on the output line of the photoreceptor element has crossed the threshold electric-signal level;

first storage means, to which a clock signal is input, for recording information regarding a time of generation of the output signal from the comparing means; and

second storage means for successively recording the electric-signal level on the output line of the photoreceptor element and holding an electric-signal level recorded at the time of generation of the output signal from the comparing means.

11. An imaging apparatus according to Claim 10, further comprising reset-signal input means for inputting a reset signal to the photoreceptor element based on the

output signal from the comparing means to reset the electric-signal level on the output line to the initial-setting electric-signal level.

12. An imaging apparatus according to Claim 10, wherein the first storage means repeatedly records time information, the second storage means repeatedly records an electric-signal level, and the reset-signal input means repeatedly inputs a reset signal to the photoreceptor element, wherein the first storage means successively stores time information regarding respective times of generation of a plurality of output signals generated intermittently from the comparing means, and wherein the second storage means holds individual electric-signal levels recorded at the respective times of generation of the plurality of output signals intermittently generated from the comparing means.

13. An imaging apparatus according to Claim 10, further comprising a calculation unit, wherein the first storage means successively records sets of time information regarding times taken for the electric-signal level on the output line to be lowered by an exposure of the photoreceptor element from an initial-setting electric-signal level until crossing the threshold electric-signal level, and wherein the calculation unit receives input of

two successive sets of time information recorded in the first storage means, and input of an electric-signal level associated with one of the two successive sets of time information, recorded in the second storage means, calculates a value of optical energy received by the photoreceptor element per unit time according to a formula (Vinit - Vx)/(Tx - Ty) where Vinit denotes the initial-setting electric-signal level, Vx denotes the electric-signal level associated with the one of the two successive sets of time information, and Tx and Ty denote the one and the other of the two successive sets of time information, respectively, and calculates a pixel value based on the value of optical energy received.

14. An imaging apparatus according to Claim 10, wherein the threshold electric-signal level changes as time elapses.

15. An imaging apparatus according to Claim 10, wherein the second storage means is an analog memory for storing an analog value, and stores the electric-signal level on the output line as an analog value.

16. An imaging apparatus according to Claim 12, wherein the second storage means has a plurality of data

recording regions, and holds individual electric-signal levels recorded at the respective times of generation of the plurality of output signals intermittently generated from the comparing means.

17. An imaging apparatus according to Claim 10, wherein the comparing means compares an amplified electric-signal level of the electric-signal level on the output line of the photoreceptor element with the threshold electric-signal level.